Scientific Research Publishing

Advances in Physical Education, 2022, 12, 87-105
https://www.scirp.org/journal/ape
ISSN Online: 2164-0408
ISSN Print: 2164-0386

"You Get to…" a Qualitative Study of Perceived Influence of Physical Activity and Sport on Mental Wellbeing among Adolescent Girls

John Murphy[1], Maura Coulter[1], Mary Rose Sweeney[2], Bronagh McGrane[1]

[1]School of Arts, Education and Movement, Dublin City University Institute of Education, Dublin, Ireland
[2]School of Nursing, Psychotherapy and Community Health, Dublin City University, Dublin, Ireland
Email: john.murphy274@mail.dcu.ie

How to cite this paper: Murphy, J., Coulter, M., Sweeney, M. R., & McGrane, B. (2022). "You Get to…" a Qualitative Study of Perceived Influence of Physical Activity and Sport on Mental Wellbeing among Adolescent Girls. *Advances in Physical Education, 12,* 87-105.
https://doi.org/10.4236/ape.2022.122008

Received: February 23, 2022
Accepted: April 9, 2022
Published: April 12, 2022

Abstract

Physical activity is well-recognized as a key risk factor for the management and prevention of mental ill-health, including anxiety and depression. The specific volumes, intensities or types of physical activity with the greatest impact on mental health are currently unclear. The current study sought to explore what aspects of physical activity may have positive or negative impacts on mental health and wellbeing. Focus group interviews were conducted with 10 adolescent females, and transcripts were analyzed using thematic analysis. Three higher-order themes, tenets of self-determination theory, were identified; autonomy, competence and relatedness. Single-factor sub-themes such as opportunity, journey to competence and facilitator of connection were identified as multi-factor sub-themes such as fun or enjoyment, and engagement in the activity. The perception of physical activity as an opportunity was identified as a key factor in contributing to positive mental health and wellbeing. It appears that autonomously motivated physical activity experiences provide the greatest levels of satisfaction for adolescents' psychological needs and therefore, they are the most effective method of enhancing mental wellbeing through physical activity. Future physical activity experiences should include an element of choice along with opportunities to engage in social interaction alongside opportunities for progression and achievement, as these appear to provide the best environment to foster positive mental wellbeing in adolescents.

Keywords

Self-Determination Theory, Team Sport, Resilience, Opportunity, Motivation

1. Introduction

Physical activity is well-recognized as a key risk factor for the management and prevention of mental ill-health, including anxiety and depression (Teychenne et al., 2020). Physical activity guidelines have been developed and refined over several decades (Oja & Titze, 2011). The original guidelines were published with a view to reducing the onset of cardiovascular disease-related mortality, and subsequently, were developed to encompass other prevalent chronic conditions such as diabetes and cancer (Piercy & Troiano, 2018). Recommendations for physical health detail the volume, intensity and type of activity that should be undertaken by both adults and young people but make no reference to other contextual factors that have been shown to play a contributory role in the support or development of optimal mental health (White et al., 2017). Recent research has identified increases in adolescents suffering from mental health issues with 4 in 10 reporting elevated symptoms of depression or anxiety (Murphy et al., 2020). Significant increases in symptoms of depression often occur during adolescence, an already very difficult period in life (Morgan et al., 2013). Daily life stresses are common to most adolescents (social circles, family, studies) and many are not aware of their condition which can lead to mental health issues worsening over time if not treated or acted upon (Beardslee & Knitzer, 2004; American Psychological Association, 2016). Evidence supporting the benefits of regular participation in leisure-time physical activity for adolescents has been well established (Hallal et al., 2006), indicating that healthy lifestyle habits should be promoted among young people (Cecchini et al., 2020). Alongside physical benefits, research on the psychological benefits of physical activity has increased in the past decade with evidence supporting positive impacts on depression (Biddle et al., 2019; Gordon et al., 2018), anxiety (Gordon et al., 2017) and mental wellbeing (Costigan et al., 2019). Research involving adolescents is not as frequent and results have been inconsistent (Dale et al., 2019) as objectively measured physical activity has null-to-weak relationship with mental health outcomes (Hagemann et al., 2021), although some contexts and life domains have demonstrated more stronger relationships (White et al., 2017; Panza et al., 2020). Contextual factors across the lifespan include the life domain that physical activity occurs in, autonomous motivation, peer support, social interaction, access to green space, and progressions and achievements over time (Richards et al., 2015). A clearer understanding of the bi-directional relationship between physical activity and mental health, or ill-health, may facilitate the delivery of successful interventions in the future, while also aiding the design and implementation of specific physical activity guidelines for mental health (Teychenne et al., 2020).

In the quest to understand human behaviour, self-determination theory (Deci & Ryan, 2004) has been frequently utilized by researchers. Vallerand (2001) suggests the major types of behavioural regulations have been positioned along a continuum ranging from intrinsic to extrinsic motivation and amotivation. Intrinsically motivated individuals perform activities for the interest, gratification,

and pleasure that is provided by the activity. Individuals who are more extrinsically motivated have a greater disposition for external rewards. From higher to lower levels of self-determination, it can be classified in four different types (Vallerand, 2001): 1) integrated: perform an activity because it is consistent with the individual's standard of living; 2) identified: perform an activity showing inner perceptions of causality; 3) introjected: perform an activity to avoid feelings of culpability and strengthen personal ego; and 4) external: perform an activity to obtain a compensation or avoid a penalty. The lack of motivation to perform an activity is known as amotivation. Optimal motivated behaviour and psychological wellbeing are dependent on the three key tenets of self-determination theory (Vlachopoulos et al., 2011) which are: 1) autonomy: seeing one's behaviour as self-endorsed; 2) competence: feelings of operative interaction with the context; and 3) relatedness: feelings of effective associations with others (Niemec & Ryan, 2009). Among adolescents, intrinsic motivation is positively associated with academic achievement, school engagement, self-esteem, confidence, subjective wellbeing, and increased satisfaction with school (Ryan & Deci, 2020). In terms of physical activity, research has shown how intrinsic motivation is positively associated with adaptive outcomes including enjoyment and physical activity intentions (Vasconcellos et al., 2019), and increased levels of physical activity (Lonsdale et al., 2019). Extrinsic motivation, however, is positively associated with maladaptive outcomes including boredom and negative affect (Vasconcellos et al., 2019). The positive effects of autonomy support and self-regulation on physical activity have also been found on a variety of mental health problems such as depression and depressive symptoms (Cecchini et al., 2017; Cecchini-Estrada et al., 2015). Further in-depth investigations are required to explore the various types of motivation that impact the relationship between physical activity and wellbeing in adolescents.

Previous research in Irish adolescents has found that those who engage in team sport and 2 or more sports have higher levels of mental wellbeing and report lower symptoms of depression and anxiety (Murphy et al., 2020; Murphy et al., 2021). Similar research in European adolescents suggests that team sport offers a protective effect against symptoms of anxiety and depression (McMahon et al., 2017). The main goal of this study was to qualitatively examine the associations between physical activity, participation in sport, and self-determined motivation on mental health outcomes in adolescent females.

2. Methods

2.1. Methodoligical Approach and Epistemological Perspective

Qualitative methods are important in exploring the potential mechanisms that underlie the relationship between physical activity and wellbeing in adolescents (Mutrie, 1997) and are particularly useful when trying to understand a relationship that is impacted by different contextual factors (Faulkner & Biddle, 2004). Therefore, this study was conducted using qualitative methods to explore the key

factors that may underpin the relationship between physical activity and wellbeing. A realist epistemological perspective was employed as realism purports that investigating an event (physical activity) as well as the context and mechanisms associated with that event lead to an enhanced understanding of the outcomes experienced (Pawson & Tilley, 1997).

2.2. Participants

In order to explore the relationship between physical activity and wellbeing in Irish adolescents, convenience purposive sampling led to the recruitment of 10 participants from a pilot school-based physical activity intervention. The intervention was informed by self-determination theory and consisted of games-based physical activities during lunchtime and was targeted at 1st year students. All 10 participants attended the 10 week intervention, were female, aged between 12 and 14 years, currently involved in 1 or more team sports and attended an all-girls catholic voluntary secondary school in the South East of Ireland. Information packs containing a participant information sheet and consent/assent forms were distributed and returned having been signed by parents/guardians prior to the focus groups taking place.

2.3. Procedures

Focus groups were used to explore the factors that influence the impact of physical activity on wellbeing as they gave the participants an opportunity to share and compare their experiences of physical activity, allowed the research team to gather information on adolescents' collective views and have been used previously for exploring the relationship between physical activity and wellbeing in adolescents (Breen, 2006; White et al., 2018).

Two focus groups were conducted with five participants in each group. Participants were grouped together based on their classes and comprised a mixture of physical activity sports participation levels. The first author conducted both focus group interviews. A semi-structured interview guide was developed by the research team and informed by previous literature (Gavin et al., 2016) and was approved in advance by the DCU ethics committee. Questions focused on what aspects of physical activity and sport the participants enjoyed and did not enjoy, how physical activity impacted their social skills and overall wellbeing. The questions asked during the focus groups were purposely kept broad to capture the settings and types of physical activity and sport that were meaningful from the perspective of the participants.

2.4. Data Analysis

All focus groups were audio-recorded and transcribed verbatim by the lead researcher. The transcripts were imported into NVivo 12 and analysed using a hybrid process of inductive (data-driven) and deductive (theoretical) coding adapted predominantly from Fereday & Muir-Cochrane (2006) with influence from Braun

& Clarke (2006), Boyatzis (1998) and Crabtree & Miller (1999) in order to encapsulate participants' shared views of physical activity and wellbeing to get an overall understanding of potential underlying mechanisms. The analysis was conducted by the first author who became familiar with the data by reading and re-reading transcripts. Codes were conducted "a priori", based on prior research or theoretical perspectives, or created on preliminary scanning of the text with some initial codes refined or modified during the analysis process (Crabtree & Miller, 1999). Quotes that were considered to represent a similar meaning or pattern were clustered together into potential themes and sub-themes. Throughout the process of deductively developing themes and sub-themes it was noted that themes were broadly reflective of the tenets of self-determination theory (*i.e.*, Autonomy; Competence; Relatedness) (Deci & Ryan, 2004) which has been used in previous research to illustrate the influence different factors have on physical activity and wellbeing (White et al., 2018) and participants were recruited from a self-determination theory-informed intervention. Themes were mapped to tenets of self-determination theory as appropriate. It must be noted that although participants did not explicitly use the words "autonomy" or "competence" in their responses; however, based on tenets of self-determination theory, the authors derived latent codes mirroring autonomy, competence or relatedness from quotes relating to these (Marks & Yardley, 2004).

Thematic data analysis was conducted by the lead author to explain participants' perceptions of the relationship between physical activity and wellbeing. Nine sub-themes were identified as can be seen in **Table 1** and **Figure 1**. These were then categorized into three overarching themes, guided by tenets of self-determination theory: Autonomy; Competence; and Relatedness. Two sub-themes overlapped between themes: "Fun or Enjoyment" overlapped between Autonomy and Competence; and "Engagement or Flow" overlapped between Competence and Relatedness and can be seen in **Table 2**.

3. Findings & Discussion

This paper explores how young people's experiences of physical activity and sport may interact with their mental wellbeing. Key findings from the focus groups will be presented as quotes depending on the theme or sub-theme they best represent. Throughout the results section, two reporting styles will be used to share findings (Krueger, 1998), providing summary description with illustrative quotes and in some instances summary description with illustrative quotes followed by interpretation.

3.1. Autonomy

3.1.1. Opportunity

An initial frequency count of most commonly used words showed that "get" was the most frequent. This was predominantly used to describe opportunities to participate in, and improve at various forms of physical activity or sports such as

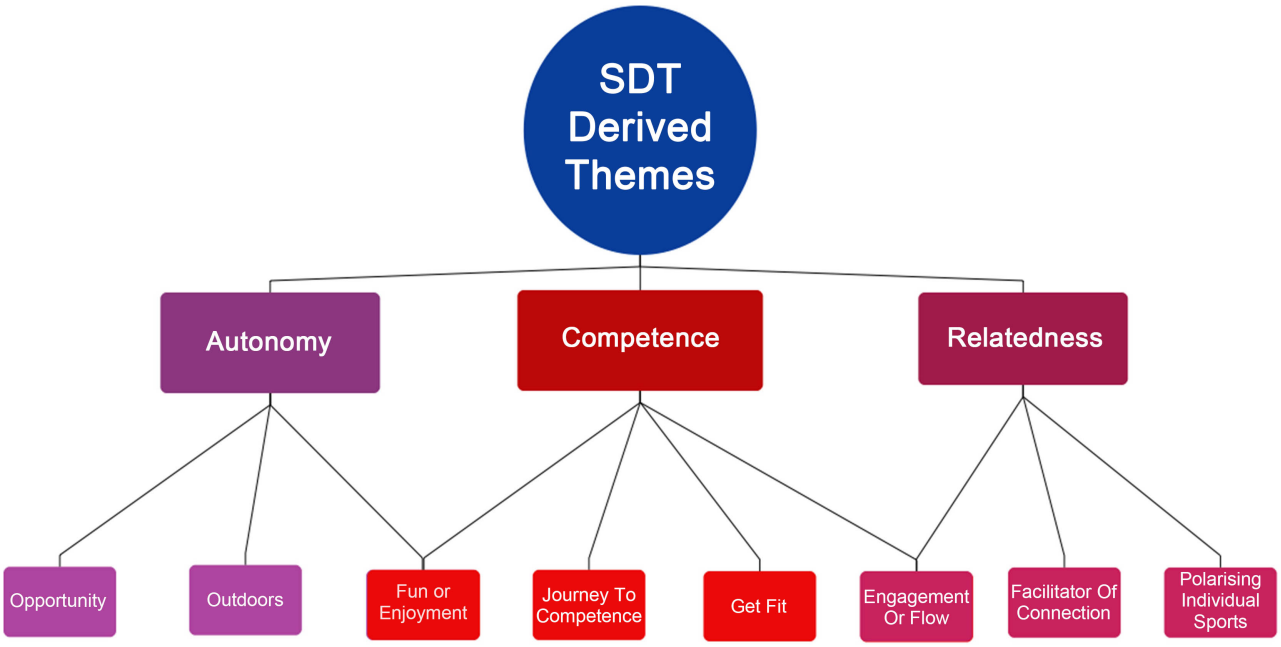

Figure 1. Themes and sub-themes informed by tenets of self-determination theory.

Table 1. Single factor themes and sub-themes informed by tenets of self-determination theory.

Theme sub-theme	**Demonstrating quote**
Autonomy	
Opportunity	"Just getting to play the sport more." "We'd get to learn new skills." "Cos you get to play games."
Outdoors	"A lot more people might want to do it when it's outside. A lot more people like it outside." "Yeh cos you need to get fresh air." "To clear your head."
Competence	
Journey to competence	"Yeh cos you'd be thinking that yes I did that. I did it well and I was ok at it. Like you've kind of accomplished something." "Like when you achieve something cos of your own effort you feel better than anything else. Like if you made the county team and other girls at home didn't you get a sense of earning it and of success in yourself."
Get fit	"Keep us fit." "If you don't do any physical activity at all like even if you don't walk like if you were extremely lazy then that would be so bad for you."
Relatedness	
Facilitator of connection	"Like your teammates are supportive for each other. You've already bonded over like simple or everyday stuff so the losing together makes it stronger. You have all the stuff to talk about too like funny stuff that happened in training or that and that helps cheer you up. "
Family influence	"I prefer hurling but that's only cos it's a family thing. I wasn't very good at the start but kept going cos I knew it was important at home."
Polarising individual sports	"I think there is a lot of pressure on them. Like say you messed up doing something in camogie then there will be someone else there that will back you up on it but in like horse riding or individual sports then all the pressure is on you. So if you mess up you're kinda gone like." "But that kinda makes them more driven and more independent to achieve what they want."

Table 2. Multi factor themes and sub-themes informed by tenets of self-determination theory.

Themes sub-theme	Demonstrating quote
Competence & autonomy	
Fun or enjoyment	"They're both at the same time. When you have a feeling that you're getting good then you enjoy it a bit more. Like if I'm getting better then I like doing the drills and playing the games a bit more." "I think enjoying it is more important cos if you don't enjoy it then you will just give up and not get better anyway. Like if you enjoy it then you'll try harder and get better quicker."
Competence & Relatedness	
Engagement in the activity leading to flow or mindfulness	"And when you're playing a sport you just kind of concentrate on sports, you're not worrying about tests or anything." "If you're ever angry then you go and hit the ball off the wall and hit it harder and harder then you're not angry anymore." "Sometimes when you're on your own it kind of gives you time to think like when you're running around the pitch on your own it's kind of nice as well to get a break. It's just a nice mixture to be with your friends but on your own as well." "Just playing sport."

"*just getting to play the sport more*" [FG1] or "*we'd get to learn new skills*" [FG1]. Some participants saw it as an opportunity to try new experiences such as a new activity/sport with one girl commenting that; "*To stay fit and Kilkenny don't play football so I thought it would be a good chance to see if I like it or not*" [FG2]. Another said that she took part "*Because, kinda…different. Try to do something else*" [FG2]. Others felt it was an opportunity to improve at the sports they already play: "*I liked getting to play all the matches. It was good to see the drills we did being put into practice*" [FG1]. Previous qualitative investigations identified physical activity behaviours that adolescents associated with positive affect were largely undertaken for autonomous reasons, such as enjoyment (Intrinsic motivation) and the valued benefits (identified regulation) (White et al., 2018). Perceiving physical activity as an opportunity helps increase the personal relevance to adolescents (Coulter et al., 2020). The participants noted how they felt physical activity was an opportunity to be active, get fit, improve or interact with others. They also mentioned the importance of choice within activities: "*I don't mind training in the rain but sometimes I'd like if they asked us what we'd like to do at training. That way we could do stuff that helps our mental positivity more.*" [FG2]. Autonomy and choice of activities have previously been demonstrated as having positive associations with intrinsic motivation, are more enjoyable and lead to increased and more sustained participation in physical activity (White et al., 2020). Others liked the fact they got to meet new people: "*I think meeting new people cos we got to mix with other classes and we didn't know what they were like or what they did*" [FG2]. Collective physical activity is more meaningful and can make explicit connections between current

physical activity experiences, and future aspects of daily living outside of the school or sport setting when personally relevant (Azzarito & Ennis, 2003; Enright & O'Sullivan, 2010) thereby increasing intrinsic motivation (Deci & Ryan, 2004).

3.1.2. Outdoors

Participants stated that they preferred being outdoors when given the choice: "*A lot more people might want to do it when it's outside. A lot more people like it outside*" [FG1]. The physiological benefits of physical activity have been well established in adolescents (Hallal et al., 2006) with evidence growing around the mental health benefits (Biddle et al., 2019). Additional physiological and mental health benefits have been found when physical activity is performed outdoors as people look to develop a greater connection with nature when exercising (Gladwell et al., 2013). Participants also had an awareness of the perceived health benefits of being outside:

"*You're inside all day anyway but it's great to get outside with other people cos you wouldn't go outside otherwise. And you're being active out there. Especially in the autumn and winter cos it's dark in the morning and when you go home so lunch is the only time we get to go outside*" [FG2].

With one participant even noting the mental health benefits when stating she likes to go outside: "*To clear your head.*" [FG2]. A review of studies examining physical activity completed outdoors revealed that exercising in natural environments was associated with greater feelings of revitalization and positive engagement, decreases in tension, confusion, anger, and depression, and increased energy (Thompson-Coon et al., 2011). Participants in outdoor activity also reported greater enjoyment and satisfaction, and declared a greater intent to engage in the activity in the future (Thompson-Coon et al., 2011).

3.2. Competence

3.2.1. Journey to Competence

Further to the above stated points about opportunities for improvement, participants went on to explain that experiencing improvements and achievements in sport generally makes them feel good about themselves and boosts their self-confidence, often coming from a feeling of accomplishment with one girl stating: "*Yeh cos you'd be thinking that yes I did that. I did it well and I was ok at it. Like you've kind of accomplished something.*" [*FG2*]. This suggests the "journey to competence" plays an important in the relationship between autonomously motivated physical activity and affective wellbeing which is similar to previous qualitative investigations where positive affect and physical activity was associated with feelings of achievement and progress (White et al., 2018). An optimal level of challenge was also noted as important with greater sense of achievement being felt when the challenge was more difficult but still attainable:

"*Oh yeh, yeh, yeh. Cos if you work for something and get there after that then it's way better. Like if you put effort into football then you make the county team*

or go on trips with your team it's way better cos you've kind of achieved or earned those things" [FG1].

Meaningful experiences in physical activity have previously been attributed to young people's perceptions of their own high motor competence (Gray et al., 2008), therefore suggesting improvements, accomplishments and learning all contribute to greater enjoyment of physical activity experiences which aligns with Scanlan & Lewthwaite's (1986) model of sport enjoyment based on the two continua of intrinsic-extrinsic and achievement-non-achievement. The sense of accomplishment in being recognized as a good player or of improving is highlighted by one participant:

"*Like when you achieve something cos of your own effort you feel better than anything else. Like if you made the county team and other girls at home didn't you get a sense of earning it and of success in yourself*" [FG1].

Self-determination theory (Deci & Ryan, 2004) suggests autonomous behaviours are likely to be associated with greater mental health benefits as individuals who participate in activities of their own volition do so to satisfy their psychological needs of autonomy, competence and relatedness.

3.2.2. Getting Fit

Getting fitter is closely related, and even a key part of, increasing competence in a chosen physical activity or sport although he participants in this study noted the importance of increases or maintained fitness in its' own right as two girls referred to the benefits of sport as "*being fit*". Adolescents' attitudes towards the health benefits of physical activity have differed based on previous levels of activity as inactive adolescents have highlighted "not getting fat" or weight management as the key benefits (Belton et al., 2014) while the participants in this study noted the potential negative consequences alongside the positive aspects suggesting a more balanced view of the importance of exercise and fitness;

"*Because you can't be lazy and be sat down cos then you'll just be overweight and have bad cholesterol and a bad heart. When you could have the chance to go outside and be active and then you'll ask why didn't I go out and you'll feel all bad about it*" [*FG*2].

This is in contrast with previous findings which suggested young females are more interested in the short-term benefits of being active than the longer term benefits (Sleap & Wormald, 2001; Biddle et al., 1998) suggesting that either those who are already active are more aware of the longer term benefits or those who are aware of the longer term benefits are more likely to remain involved in physical activity.

3.3. Relatedness

3.3.1. Facilitator of Connection

A previous quantitative investigation found that participants who completed some of their physical activity with other people were less likely to experience symptoms of depression when compared to individuals who completed all of their

physical activity alone (Teychenne et al., 2010). This has been backed up by qualitative research in adolescents, and appears to be most beneficial when a sense of belonging is experienced (White et al., 2018). One tenet of self-determination theory, *relatedness*, was mentioned as a key factor in enhancing the positive experiences mentioned above such as when increasing competence along with friends or peers: "*Yeh, because you make friends for life that you've been playing with all the time. You'd just be happier cos you have them as well as playing the sport*" [FG1].

Although engaging in physical activity or sport with friends was deemed important, participants stated how they found physical activity to be an excellent facilitator for engaging with friends and meeting new ones: "*If you play a few sports then you've a wider variety of friends and of interests so you're not just focused on that one sport or that one thing. It kinda stops you worrying about it.*" [*FG*2]. Participants also mentioned how experiences from playing sport together can lead to much stronger friendships and relationships, potentially from having more in common:

"*I think it's easier to talk to people when you're on a team because you're just playing the sport and if you're playing the games it's obviously something you have in common that you enjoy together and if not you wouldn't be doing it. So like, it's an easier way to talk to people cos you're already in a conversation and stuff*" [*FG*2].

Relatedness appears to be a key contributor to the positive affect experienced during and after participating in physical activity (Baumeister & Leary, 1995). Although challenging situations were also mentioned as having a significant impact on the strength of relationships with one girl stating:

"*Cos everyone is so sad in the dressing room and you're all kinda sharing it. You're with them about* 3 *times a week so you already know each other well so it's easier to say the right thing or even nothing if you don't want to*" [FG1].

The challenging nature of sporting activities and sense of togetherness that is experienced by teammates are likely contributors to the sense of belonging that adolescents experience when participating in team sports, often compounded by both positive and negative results in the sport:

"*Like your teammates are supportive for each other. You've already bonded over like simple or everyday stuff so the losing together makes it stronger. You have all the stuff to talk about too like funny stuff that happened in training or that and that helps cheer you up*" [FG2].

Merely participating in physical activity with others is unlikely to be beneficial on its own, instead, the satisfaction of the basic psychological need for relatedness appears to influence whether physical activity experiences are associated with positive affect, and therefore are an important mechanism (White et al., 2018).

3.3.2. Family Influence

Building connections with friends through physical activity and sport was men-

tioned many times but the influence of family for getting involved in sport was deemed important by a few participants. Parents play a key role in adolescents' physical activity motivation and participation (Whitehead & Biddle, 2008) with active parents more likely to initiate greater physical activity involvement than inactive parents (Robertson-Wilson et al., 2003). Consistent with previous work, our findings suggest that parental encouragement not only plays a role in how active an adolescent will be (Biddle et al., 2005), but also what particular activity they are most likely to participate in: "*I think the way **** says camogie is a family thing that's like me too. No one in my family does soccer so none of us play or have interest in it*" [FG1]. Family influences were also deemed to be important to stay involved in sports even when they don't perceive themselves to be good at it, particularly at the outset: "*I prefer hurling but that's only cos it's a family thing. I wasn't very good at the start but kept going cos I knew it was important at home*" [FG1]. As parents are most likely to encourage their children to be physically active from a young age, by the time they reach teenage years, being active has become habitual and often forms part of their overall identity (Rhodes et al., 2016) contributing to an overall greater sense of purpose each time they engage in activity (Yemiscigil & Vlaev, 2021).

3.3.3. Polarising Views of Individual Sports

Previous research has shown that adolescents involved in a greater number of sports and in team sport have higher mental wellbeing than those in singular or individual sports (Murphy et al., 2020) although the reasons behind this are currently unknown with a dearth of literature looking at differences in personality traits between individual and team sport. The relationship between personality and participation in sport is likely bidirectional (Nia & Besharat, 2010) with participants suggesting that participating in individual sports suggesting that: "*It kinda brings you more in either direction*" [FG2]. Adolescents participating in individual sports may possibly experience greater extremes in terms of mental wellbeing with one participant suggesting:

"*Sometimes you can have more time to think about it in individual sports and time to think about yourself when you're practicing and all. But then you've no one to talk to at the same time. While in camogie or in team sport you don't feel like everyone's watching you. When you're playing something there's like* 15 *people but then when there's only* 1 *there's like a lot more pressure on them*" [FG2].

Previous investigations examining personality traits and participation in team sport (Laborde et al., 2016) suggest that Trust, one of the components of agreeableness, as an interpersonal factor helps the participant so that they can rely on others more easily and develop the group activities and relationships. Team sports provide a suitable ground for achieving this characteristic as agreeableness based on trust prepares the individual for team sprots (Nia & Besharat, 2010). The trust developed when engaging in team sport was mentioned by one participant who

stated: "*Like the girls who play team sports are easier to get on with cos they just know how to make friends with someone*" [FG1]. Other participants felt similar and that adolescents who only engaged in individual sport were unable to develop the same social skills: "*They're just focused on them…Like they couldn't play a match cos they wouldn't always be on the ball*" [FG1] with others suggesting they struggled to share the attention: "*When I do ballet there are a good few that only do dance and they're way more self-involved than most people*" [FG1]. In contrast to some of the potential negative aspects, some felt that participating in individual sports can lead to facing more pressure:

"*I think there is a lot of pressure on them. Like say you messed up doing something in camogie then there will be someone else there that will back you up on it but in like horse riding or individual sports then all the pressure is on you. So if you mess up you're kinda gone like*" [FG1].

Although another participant responded that in turn it may develop a greater internal drive or self-motivation: "*But that kinda makes them more driven and more independent to achieve what they want*" [FG1]. This is in line with previous findings suggesting that individual athletes scored higher than team sport athletes in personality-trait-like individual differences such as perseverance, positivity, and self-esteem (Laborde et al., 2016). These findings may be taken with caution, however, as adolescents most likely to persist in individual sports may already have higher levels of perseverance and therefore are likely to stay with sport in the longer term as opposed to it being developed through the sport itself. The impact of participation in team and individual sport on mental wellbeing and personality traits warrants further investigation.

3.4. Multi-Factor: Competence & Autonomy

Fun or Enjoyment

The main benefit of physical activity highlighted by the majority of young people is fun or enjoyment, whether they be active or inactive (Coulter et al., 2020) and serves as an integral part of young people's experiences in collective physical activity and falls under the broader themes of both "Competence" and "Autonomy". The majority of participants described physical activity as enjoyable but for a variety of reasons that included both the reasons for participating and the extent to which they improved or developed proficiency: "*When you have a feeling that you're getting good then you enjoy it a bit more. Like if I'm getting better then I like doing the drills and playing the games a bit more*" [*FG1*] or in simpler terms: "*You enjoy it cos you've been playing it for longer so you're better at it*" [FG2]. Improvements in the activity or sport seemed to increase enjoyment. When asked if they enjoyed it first then started to get good or became good then started to enjoy it more participants responded with a combination of both:

"*They're both at the same time. When you have a feeling that you're getting good then you enjoy it a bit more. Like if I'm getting better then I like doing the drills and playing the games a bit more*" [*FG1*].

The importance of enjoyment is echoed in research into young people's par-

ticipation in competitive sport which suggests the degree to which young people drop out is almost always found to be one of their primary reasons for participating or dropping out (Gill et al., 1983; Gould et al., 1985). The motivation to practice an activity appears to be linked to their level of competence, both in terms of the enjoyment derived from practice but also to the level of effort put in. Having something to work towards and improve upon was also highlighted as important for greater enjoyment: "*I think enjoying it is more important cos if you don't enjoy it then you will just give up and not get better anyway. Like if you enjoy it then you'll try harder and get better quicker*" [FG1]. For fun to be considered part of a meaningful experience it should not reflect an unstructured or undisciplined approach (Quennerstedt, 2013), but provides meaning in a manner that is enjoyable to the participant through improvements, progression and an appropriate level of challenge as one participant stated: "*Like I know you need to practice each skill every so often but not the same ones all the time. You want to get better at all kinds of skills and stuff not just the same ones*" [FG2]. This has similar conceptual overlap to Achievement Goal Theory (Ames, 1992) whereby the pursuit of a goal the adolescent identifies for themselves brings enjoyment. These findings provide some support for the mastery hypothesis which suggests that participating in physical activity enhances feelings of success and confidence that benefit mental health when the feeling of mastery is carried into other areas of life (Paluska & Schwenk, 2000).

3.5. Multi-Factor: Competence & Relatedness

Engagement in the Activity Leading to Flow or Mindfulness

Engagement in physical activity has previously been identified by adolescents as an opportunity for distraction from everyday stressors and for mindfulness (White et al., 2018). The formation and maintenance of social relationships coupled with academic pressures are major stressors in the lives of adolescents. Physical activity serves as an opportunity to take a "mental break" from some of these stressors: "*It gives you a mental break. It takes your mind off tests and all that. You're not thinking about the work you're doing in the next class or worrying about any of that stuff*" [FG1]. Both stress relief and mindfulness were mentioned by participants, especially when engaging in physical activity on their own:

"*Sometimes when you're on your own it kind of gives you time to think like when you're running around the pitch on your own it's kind of nice as well to get a break. It's just a nice mixture to be with your friends but on your own as well*" [FG2].

Participants sometimes described participation in physical activity as an opportunity for mindfulness or to experience states resembling flow: "*And when you're playing a sport you just kind of concentrate on sports, you're not worrying about tests or anything*" [FG1]. These "flow-like" states come from a deep engagement in the activity. It has been argued that motivation to perform or complete a task is highest when the difficulty of said task is matched by the individu-

al's personal abilities and skills (Nakamura & Csikszentmihalyi, 2014). This meeting of optimal challenge, skill and ability led to a state of "flow", or supreme enjoyment and engagement in the task. Suboptimal pairings of challenge and ability can lead to boredom (high ability, low challenge) or anxiety (low ability, high challenge). The participants in this study noted autonomously regulated reasons for participating in and improving at their chosen activities alongside feelings of distraction. Autonomy supportive behaviours should be promoted and encouraged in the future, not only to increase physical activity but also to enable adolescents to develop deeper feelings of intrinsic motivation and positively impact their wellbeing (Cheon et al., 2012).

4. Conclusion

Although the focus groups provided a great deal of rich data, the study was not without its limitations. As with any qualitative research of this nature, it is acknowledged that the findings are specific to the participants in this study and cannot necessarily be extrapolated to the population as a whole. Although the participants seemed typical of younger adolescent females in Ireland, they all self-identified as active and involved in team sports, thereby already having a positive bias towards higher levels of physical activity and engagement in sport. It is reasonable to expect that their collective opinions were generally representative of other active adolescent females although future investigations should seek to include voices from inactive adolescents, those not involved in team sport and adolescents with reduced activity levels so as to avoid a "survivorship bias". Our findings, in line with previous research, conclude that physical activity in and of itself are not directly associated with higher levels of mental wellbeing. The various aspects that contribute to the context within which physical activity is experienced play a major role in the potential mental wellbeing benefits that can be derived. In line with self-determination theory, physical activity experiences should include an aspect of choice or autonomy; room for progression, improvements or opportunities to develop a level of competence; and include opportunities for social interaction. It appears that autonomously motivated physical activity experiences provide the greatest levels of satisfaction for adolescents' psychological needs and therefore, they are the most effective methods of enhancing mental wellbeing through physical activity. We recommend that coaches, teachers and parents should support future physical activity experiences that include an element of choice along with opportunities to engage in social interaction in conjunction with opportunities for progression and achievement, as these appear to provide the best environment to foster positive mental wellbeing in adolescents.

Conflicts of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

References

American Psychological Association (2016). *Depression*. https://www.apa.org/topics/depression

Ames, C. (1992). Classrooms: Goals, Structures, and Student Motivation. *Journal of Educational Psychology, 84,* 261. https://doi.org/10.1037/0022-0663.84.3.261

Azzarito, L., & Ennis, C. D. (2003). A Sense of Connection: Toward Social Constructivist Physical Education. *Sport, Education and Society, 8,* 179-197. https://doi.org/10.1080/13573320309255

Baumeister, R. F., & Leary, M. R. (1995). The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation. *Psychological Bulletin, 117,* 497. https://doi.org/10.1037/0033-2909.117.3.497

Beardslee, W., & Knitzer, J. (2004). Mental Health Services: A Family Systems Approach. In K. Maton, C. Shellenbach, B. Leadbeater, & A. Solarz (Eds.), *Investing in Children, Youth, Families, and Communities: Strengths-Based Research and Policy* (pp. 147-183). American Psychological Association. https://doi.org/10.1037/10660-009

Belton, S., O'Brien, W., Meegan, S., Woods, C., & Issartel, J. (2014). Youth-Physical Activity towards Health: Evidence and Background to the Development of the Y-PATH Physical Activity Intervention for Adolescents. *BMC Public Health, 14,* Article No. 122. https://doi.org/10.1186/1471-2458-14-122

Biddle, S. J., Ciaccioni, S., Thomas, G., & Vergeer, I. (2019). Physical Activity and Mental Health in Children and Adolescents: An Updated Review of Reviews and an Analysis of Causality. *Psychology of Sport and Exercise, 42,* 146-155. https://doi.org/10.1016/j.psychsport.2018.08.011

Biddle, S. J., Whitehead, S. H., O'Donovan, T. M., & Nevill, M. E. (2005). Correlates of Participation in Physical Activity for Adolescent Girls: A Systematic Review of Recent Literature. *Journal of Physical Activity and Health, 2,* 423-434. https://doi.org/10.1123/jpah.2.4.423

Biddle, S., Sallis, J. F., & Cavill, N. (1998). *Young and Active? Young People and Health-Enhancing Physical Activity-Evidence and Implications*. Health Education Authority.

Boyatzis, R. E. (1998). *Transforming Qualitative Information*. SAGE Publications Inc.

Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology, 3,* 77-101. https://doi.org/10.1191/1478088706qp063oa

Breen, R. L. (2006). A Practical Guide to Focus-Group Research. *Journal of Geography in Higher Education, 30,* 463-475. https://doi.org/10.1080/03098260600927575

Cecchini, J. A., Fernandez-Rio, J., Mendez-Gimenez, A., & Sanchez-Martinez, B. (2020). Connections among Physical Activity, Motivation, and Depressive Symptoms in Adolescent Girls. *European Physical Education Review, 26,* 682-694. https://doi.org/10.1177/1356336X20902176

Cecchini, J. A., Fernández-Río, J., Méndez-Giménez, A., Carriedo, A., & Arruza, J. A. (2017). A Self-Determination Approach to the Understanding of the Impact of Physical Activity on Depressive Symptoms. *Stress and Health, 33,* 600-607. https://doi.org/10.1002/smi.2744

Cecchini-Estrada, J. A., Méndez-Giménez, A., Cecchini, C., Moulton, M., & Rodríguez, C. (2015). Exercise and Epstein's Target for Treatment of Depressive Symptoms: A Randomized Study. *International Journal of Clinical and Health Psychology, 15,* 191-199. https://doi.org/10.1016/j.ijchp.2015.05.001

Cheon, S. H., Reeve, J., & Moon, I. S. (2012). Experimentally Based, Longitudinally Designed, Teacher-Focused Intervention to Help Physical Education Teachers Be More Autonomy

Supportive toward Their Students. *Journal of Sport and Exercise Psychology, 34,* 365-396. https://doi.org/10.1123/jsep.34.3.365

Costigan, S. A., Lubans, D. R., Lonsdale, C., Sanders, T., & del Pozo Cruz, B. (2019). Associations between Physical Activity Intensity and Well-Being in Adolescents. *Preventive Medicine, 125,* 55-61. https://doi.org/10.1016/j.ypmed.2019.05.009

Coulter, M., Scanlon, D., MacPhail, A., O'Brien, W., Belton, S., & Woods, C. (2020). The (mis) Alignment between Young People's Collective Physical Activity Experience and Physical Education Curriculum Development in Ireland. *Curriculum Studies in Health and Physical Education, 11,* 204-221. https://doi.org/10.1080/25742981.2020.1808493

Crabtree, B., & Miller, W. (1999). *Doing Qualitative Research*. SAGE Publications Inc.

Dale, L. P., Vanderloo, L., Moore, S., & Faulkner, G. (2019). Physical Activity and Depression, Anxiety, and Self-Esteem in Children and Youth: An Umbrella Systematic Review. *Mental Health and Physical Activity, 16,* 66-79. https://doi.org/10.1016/j.mhpa.2018.12.001

Deci, E. L., & Ryan, R. M. (2004). *Handbook of Self-Determination Research*. University Rochester Press.

Enright, E., & O'Sullivan, M. (2010). Can I Do It in My Pyjamas? Negotiating a Physical Education Curriculum with Teenage Girls. *European Physical Education Review, 16,* 203-222. https://doi.org/10.1177/1356336X10382967

Faulkner, G., & Biddle, S. J. (2004). Exercise and Depression: Considering Variability and Contextuality. *Journal of Sport and Exercise Psychology, 26,* 3-18. https://doi.org/10.1123/jsep.26.1.3

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating Rigor Using Thematic Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme Development. *International Journal of Qualitative Methods, 5,* 80-92. https://doi.org/10.1177/160940690600500107

Gavin, J., Mcbrearty, M., Malo, K. I. T., Abravanel, M., & Moudrakovski, T. (2016). Adolescents' Perception of the Psychosocial Factors Affecting Sustained Engagement in Sports and Physical Activity. *International Journal of Exercise Science, 9,* 384.

Gill, D. L., Gross, J. B., & Huddleston, S. (1983). Participation Motivation in Youth Sports. *International Journal of Sport Psychology, 14,* 11-14.

Gladwell, V. F., Brown, D. K., Wood, C., Sandercock, G. R., & Barton, J. L. (2013). The Great Outdoors: How a Green Exercise Environment Can Benefit All. *Extreme Physiology & Medicine, 2,* 1-7. https://doi.org/10.1186/2046-7648-2-3

Gordon, B. R., McDowell, C. P., Hallgren, M., Meyer, J. D., Lyons, M., & Herring, M. P. (2018). Association of Efficacy of Resistance Exercise Training with Depressive Symptoms: Meta-Analysis and Meta-Regression Analysis of Randomized Clinical Trials. *JAMA Psychiatry, 75,* 566-576. https://doi.org/10.1001/jamapsychiatry.2018.0572

Gordon, B. R., McDowell, C. P., Lyons, M., & Herring, M. P. (2017). The Effects of Resistance Exercise Training on Anxiety: A Meta-Analysis and Meta-Regression Analysis of Randomized Controlled Trials. *Sports Medicine, 47,* 2521-2532. https://doi.org/10.1007/s40279-017-0769-0

Gould, D., Feltz, D., & Weiss, M. (1985). Motives for Participating in Competitive Youth Swimming. *International Journal of Sport Psychology, 16,* 126-140.

Gray, S., Sproule, J., & Wang, C. J. (2008). Pupils' Perceptions of and Experiences in Team Invasion Games: A Case Study of a Scottish Secondary School and Its Three Feeder Primary Schools. *European Physical Education Review, 14,* 179-201. https://doi.org/10.1177/1356336X08090705

Hagemann, N., Kirtley, O., Lafit, G., Wampers, M., Achterhof, R., Hermans, K., Hiekkaranta,

A. P., Lecei, A., & Myin-Germeys, I. (2021). *Objectively Measured Physical Activity and Symptoms of Psychopathology in General Population Adolescents from the SIGMA Cohort*. https://doi.org/10.31234/osf.io/43fcx

Hallal, P. C., Victora, C. G., Azevedo, M. R., & Wells, J. C. (2006). Adolescent Physical Activity and Health. *Sports Medicine, 36,* 1019-1030. https://doi.org/10.2165/00007256-200636120-00003

Krueger, R. A. (1998). *Analyzing and Reporting Focus Group Results* (Vol. 6). Sage Publications. https://doi.org/10.4135/9781483328157

Laborde, S., Guillén, F., & Mosley, E. (2016). Positive Personality-Trait-Like Individual Differences in Athletes from Individual- and Team Sports and in Non-Athletes. *Psychology of Sport and Exercise, 26,* 9-13. https://doi.org/10.1016/j.psychsport.2016.05.009

Lonsdale, C., Lester, A., Owen, K. B., White, R. L., Peralta, L., Kirwan, M., Diallo, T. M., Maeder, A. J., Bennie, A., MacMillan, F., & Kolt, G. S. (2019). An Internet-Supported School Physical Activity Intervention in Low Socioeconomic Status Communities: Results from the Activity and Motivation in Physical Education (AMPED) Cluster Randomised Controlled Trial. *British Journal of Sports Medicine, 53,* 341-347. https://doi.org/10.1136/bjsports-2017-097904

Marks, D. F., & Yardley, L. (2004). *Research Methods for Clinical and Health Psychology*. Sage. https://doi.org/10.4135/9781849209793

McMahon, E. M., Corcoran, P., O'Regan, G., Keeley, H., Cannon, M., Carli, V., Balazs, J. et al. (2017). Physical Activity in European Adolescents and Associations with Anxiety, Depression and Well-Being. *European Child & Adolescent Psychiatry, 26,* 111-122. https://doi.org/10.1007/s00787-016-0875-9

Morgan, J. K., Olino, T. M., McMakin, D. L., Ryan, N. D., & Forbes, E. E. (2013). Neural Response to Reward as a Predictor of Increases in Depressive Symptoms in Adolescence. *Neurobiology of Disease, 52,* 66-74. https://doi.org/10.1016/j.nbd.2012.03.039

Murphy, J., McGrane, B., & Sweeney, M. R. (2021). Physical Activity, Mental Health and Wellbeing of Irish Adolescents during Covid-19 Restrictions. A Re-Issue of the Physical Activity and Wellbeing Study (PAWS). *Physical Activity and Health*. https://doi.org/10.20944/preprints202107.0580.v1

Murphy, J., Sweeney, M. R., & McGrane, B. (2020). Physical Activity and Sports Participation in Irish Adolescents and Associations with Anxiety, Depression and Mental Wellbeing. Findings from the Physical Activity and Wellbeing (PAWS) Study. *Physical Activity and Health, 4,* 107-119. https://doi.org/10.5334/paah.58

Mutrie, N. (1997). The Therapeutic Effects of Exercise on the Self. In K. R. Fox (Ed.), *The Physical Self: From Motivation to Wellbeing* (pp. 75-109). John Wiley.

Nakamura, J., & Csikszentmihalyi, M. (2014). The Concept of Flow. In *Flow and the Foundations of Positive Psychology* (pp. 239-263). Springer. https://doi.org/10.1007/978-94-017-9088-8_16

Nia, M. E., & Besharat, M. A. (2010). Comparison of Athletes' Personality Characteristics in Individual and Team Sports. *Procedia-Social and Behavioral Sciences, 5,* 808-812. https://doi.org/10.1016/j.sbspro.2010.07.189

Niemiec, C. P., & Ryan, R. M. (2009). Autonomy, Competence, and Relatedness in the Classroom: Applying Self-Determination Theory to Educational Practice. *Theory and research in Education, 7,* 133-144. https://doi.org/10.1177/1477878509104318

Oja, P., & Titze, S. (2011). Physical Activity Recommendations for Public Health: Development and Policy Context. *EPMA Journal, 2,* 253-259. https://doi.org/10.1007/s13167-011-0090-1

Paluska, S. A., & Schwenk, T. L. (2000). Physical Activity and Mental Health. *Sports Medicine, 29,* 167-180. https://doi.org/10.2165/00007256-200029030-00003

Panza, M. J., Graupensperger, S., Agans, J. P., Doré, I., Vella, S. A., & Evans, M. B. (2020). Adolescent Sport Participation and Symptoms of Anxiety and Depression: A Systematic Review and Meta-Analysis. *Journal of Sport and Exercise Psychology, 42,* 201-218. https://doi.org/10.1123/jsep.2019-0235

Pawson, R., & Tilley, N. (1997). *Realistic Evaluation*. Sage.

Piercy, K. L., & Troiano, R. P. (2018). Physical Activity Guidelines for Americans from the US Department of Health and Human Services: Cardiovascular Benefits and Recommendations. *Circulation: Cardiovascular Quality and Outcomes, 11,* e005263. https://doi.org/10.1161/CIRCOUTCOMES.118.005263

Quennerstedt, M. (2013). Practical Epistemologies in Physical Education Practice. *Sport, Education and Society, 18,* 311-333. https://doi.org/10.1080/13573322.2011.582245

Rhodes, R. E., Kaushal, N., & Quinlan, A. (2016). Is Physical Activity a Part of Who I Am? A Review and Meta-Analysis of Identity, Schema and Physical Activity. *Health Psychology Review, 10,* 204-225. https://doi.org/10.1080/17437199.2016.1143334

Richards, J., Doherty, A., & Foster, C. (2015). Is the Current Focus of the Global Physical Activity Recommendations for Youth Appropriate in All Settings? *Journal of Physical Activity and Health, 12,* 901-903. https://doi.org/10.1123/jpah.2015-0406

Robertson-Wilson, J., Baker, J., Derbyshire, E., & Côté, J. (2003). Childhood Physical Activity Involvement in Active and Inactive Female Adults. *Avante-Ontario, 9,* 1-8.

Ryan, R. M., & Deci, E. L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist, 55,* 68. https://doi.org/10.1037/0003-066X.55.1.68

Scanlan, T. K., & Lewthwaite, R. (1986). Social Psychological Aspects of Competition for Male Youth Sport Participants: IV. Predictors of Enjoyment. *Journal of Sport Psychology, 8,* 25-35. https://doi.org/10.1123/jsp.8.1.25

Sleap, M., & Wormald, H. (2001). Perceptions of Physical Activity among Young Women Aged 16 and 17 Years. *European Journal of Physical Education, 6,* 26-37. https://doi.org/10.1080/1740898010060104

Teychenne, M., Ball, K., & Salmon, J. (2010). Sedentary Behavior and Depression among Adults: A Review. *International Journal of Behavioral Medicine, 17,* 246-254. https://doi.org/10.1007/s12529-010-9075-z

Teychenne, M., White, R. L., Richards, J., Schuch, F. B., Rosenbaum, S., & Bennie, J. A. (2020). Do We Need Physical Activity Guidelines for Mental Health: What Does the Evidence Tell Us? *Mental Health and Physical Activity, 18,* Article ID: 100315. https://doi.org/10.1016/j.mhpa.2019.100315

Thompson-Coon, J., Boddy, K., Stein, K., Whear, R., Barton, J., & Depledge, M. H. (2011). Does Participating in Physical Activity in Outdoor Natural Environments Have a Greater Effect on Physical and Mental Wellbeing than Physical Activity Indoors? A Systematic Review. *Environmental Science & Technology, 45,* 1761-1772. https://doi.org/10.1021/es102947t

Vallerand, R. J. (2001). A Hierarchical Model of Intrinsic and Extrinsic Motivation in Sport and Exercise. *Advances in Motivation in Sport and Exercise, 2,* 263-319.

Vasconcellos, D., Parker, P. D., Hilland, T., Cinelli, R., Owen, K. B., Kapsal, N., Lee, J., Antczak, D., Ntoumanis, N., Ryan, R. M., & Lonsdale, C. (2019). Self-Determination Theory Applied to Physical Education: A Systematic Review and Meta-Analysis. *Journal of Educational Psychology, 112,* 1444. https://doi.org/10.1037/edu0000420

Vlachopoulos, S. P., Katartzi, E. S., & Kontou, M. G. (2011). The Basic Psychological Needs in Physical Education Scale. *Journal of Teaching in Physical Education, 30,* 263-280. https://doi.org/10.1123/jtpe.30.3.263

White, R. L., Babic, M. J., Parker, P. D., Lubans, D. R., Astell-Burt, T., & Lonsdale, C. (2017). Domain-Specific Physical Activity and Mental Health: A Meta-Analysis. *American Journal of Preventive Medicine, 52,* 653-666. https://doi.org/10.1016/j.amepre.2016.12.008

White, R. L., Bennie, A., Vasconcellos, D., Cinelli, R., Hilland, T., Owen, K. B., & Lonsdale, C. (2020). Self-Determination Theory in Physical Education: A Systematic Review of Qualitative Studies. *Teaching and Teacher Education, 99,* Article ID: 103247. https://doi.org/10.1016/j.tate.2020.103247

White, R. L., Olson, R., Parker, P. D., Astell-Burt, T., & Lonsdale, C. (2018). A Qualitative Investigation of the Perceived Influence of Adolescents' Motivation on Relationships between Domain-Specific Physical Activity and Positive and Negative Affect. *Mental Health and Physical Activity, 14,* 113-120. https://doi.org/10.1016/j.mhpa.2018.03.002

Whitehead, S., & Biddle, S. (2008). Adolescent Girls' Perceptions of Physical Activity: A Focus Group Study. *European Physical Education Review, 14,* 243-262. https://doi.org/10.1177/1356336X08090708

Yemiscigil, A., & Vlaev, I. (2021). The Bidirectional Relationship between Sense of Purpose in Life and Physical Activity: A Longitudinal Study. *Journal of Behavioral Medicine, 44,* 715-725. https://doi.org/10.1007/s10865-021-00220-2